LIVINGSTON & MATTESICH

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June 3, 2003

VIA HAND-DELIVERY

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California Department of Pesticide Regulation
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RE: RESPONSE TO DPR COMMENTS ON AMBI 2001 AND 2002 REPORTS

Dear Mr. Segawa:

Enclosed please find Study Director Dr. Eric Winegar's response to the Department of Pesticide Regulation's comments on the Alliance of the Methyl Bromide Industry's 2001 and 2002 air studies.

You will find this response dispositive to the questions raised by DPR, and it should allow DPR to fully utilize these data in their air concentration evaluation.

Sincerely,

WILLIAM J. THOMAS

WJT:ad
Enclosures

cc: w/Enclosures: Doug Okumura, Dept. of Pesticide Regulation
Chuck Andrews, Dept. of Pesticide Regulation
Alliance of the Methyl Bromide Industry
cc: w/out Enclosures: Paul Gosselin
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·Applied Measurement Science·
Consultants in Quantitative Process and Environmental Measurements

June 2, 2003

Alliance of the Methyl Bromide Industry
c/o William J. Thomas
Livingston & Mattesich Law Corporation
1201 K Street, Suite 1100
Sacramento, CA 95814-3938

Dear Bill,

The purpose of this letter is to transmit my responses to DPR's recent request for clarifications and corrections to the 2001 and 2002 AMBI methyl bromide air monitoring data. As I indicated in the meeting, many of the issues from the 2001 monitoring had been addressed in some fashion, whether in person or in the public meeting of June, 2002. However, it appears that a final complete response had not been sufficiently communicated. This letter should accomplish that goal. In addition, other requests regarding the 2002 data were also transmitted, and this letter addresses those comments also.

The DPR requests have come in several different ways—the original memo of May 29, 2002, the memo from May 22, 2002, and the email from May 27, 2003. I have listed the DPR comments and responded to each in turn. There may be some redundancy, but I have included all comments in the interest of completeness.

The following responses will directly address these specific recent requests. The final reports will be revised to reflect these changes following a short period for additional DPR comments.

Please contact me if you have any questions.

Regards,

Eric D Winegar

Eric D Winegar, Ph.D.
Principal

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MEMORANDUM

TO: Randy Segawa, DPR
FROM: Eric Winegar, AMS
DATE: June 2, 2002
SUBJECT: Response to DPR Comments on AMBI 2001 and 2002 Reports

Department of Pesticide Regulation Comments

I. Memo of May 22, 2003

2001 AMBI Study

1. Data Errors

DPR Comment

Data Errors

- Samples were identified as valid, but are actually invalid.
- Other samples were identified as invalid, but are actually valid.
- Different tables displaying the same data show different concentrations.

Response

A valid collected sample is defined as one that has collected a reasonably consistent sample over the 24-hours of the sampling period. This can be judged by the flow rate on the sample at the end of the period, the ending canister pressure, or both. If the ending flow rate is within the specifications, then the assumption is that the sample was collected at something close to that rate over the sampling period. For the AMBI 2001 study, the criterion was listed as ±50%, as originally stated in the work plan. This criterion was based on experience from using commercially available flow controllers that frequently do not perform as well as dedicated equipment.

However, another means for estimating the validity of sample integration is the ending pressure. It is quite likely if the final pressure is in the correct operating range of the flow controller (-5 inches and below, for example), the flow rate was constant over the sampling period. It is unlikely that the sample flow rate would increase significantly and then decrease, or vice-versa. Experience from many instances of monitoring flow every few hours over 24-hours is that the flow rate changes in one direction only, either opening up the orifice for a higher flow or closing down for a lower flow.

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Therefore, in reviewing the final canister data, it was decided to look at both aspects of the flow measurement. If the flow measurement indicated a low flow but the final pressure was in the right range, the judgment was made to validate the sample. This is the judgment stated in the 2001 data report.

> Based on the above discussion, the data for the listed samples has been reviewed, and several samples still remain valid. In addition, the samples incorrectly stated as invalid are indeed valid using the flow rate criterion. The net change in the number of valid samples is one less valid sample than originally.

Sample	Flow	Pressure	Final Status
PVW, 09/08/01	0.5	-8	**Valid**
UWC Duplicate, 09/19/01	0.5	-8	**Valid**
UWC 09/20/01	0.4	0	Invalid
PVW Duplicate, 09/29/01	0.4	-9	**Valid**
SHA, 10/08/01	0.1	0	Invalid
UWC, 10/10/01	1.3	-7	**Valid**
AGC, 09/26/01	0	-1	Invalid
PNT, 10/01/01	0	-1	Invalid
SHA,Duplicate, 08/24/01	2.3	-10	**Valid**
UWC, 09/13.01	2.8	-10	**Valid**
AGC, 09/16/01	3.3	-8	**Valid**

Therefore, the final data based on these revisions are included in the following table. This table will also be transmitted as a separate Excel spreadsheet.

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Final Data Table for Ventura County 2001 AMBI Study

Revised	PVW	UWC	SHA	ABD	Note
15-Aug-01	1.82	2.58	0.69	NS	
16-Aug-01	1.05	1.85	0.17	NS	
17-Aug-01	3.17	1.8	0.18	NS	
18-Aug-01					
19-Aug-01					
20-Aug-01					
21-Aug-01	0.5	1.53		NS	
22-Aug-01	1.91	0.45		NS	
23-Aug-01	2.49	4.35	2.94	NS	
24-Aug-01		2.01	3.38	NS	a
25-Aug-01	0.81	0.25	1.09	NS	
26-Aug-01					
27-Aug-01					
28-Aug-01	0.12	0.21	1.09	NS	
29-Aug-01	0.15	0.1	0.07	NS	
30-Aug-01	0.28	0.35	0.56	0.44	
31-Aug-01	0.15	0.18			
1-Sep-01					
2-Sep-01					
3-Sep-01					
4-Sep-01					
5-Sep-01					
6-Sep-01	0.2	DNA	0.04	0.05	
7-Sep-01	0.1	DNA	0.03	0.13	
8-Sep-01	0.07	DNA	0.05	0.13	b
9-Sep-01	0.16	DNA	0.23	0.39	
10-Sep-01					
11-Sep-01					
12-Sep-01					
13-Sep-01	0.17	0.07	0.38	0.07	c
14-Sep-01	0.15		0.07	0.1	
15-Sep-01	0.2		0.13	0.15	
16-Sep-01	0.29		0.11	0.11	
17-Sep-01	0.35		0.13	0.14	

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Revised	PVW	UWC	SHA	ABD	Note
18-Sep-01					
19-Sep-01	0.18	0.18	0.1	0.1	d
20-Sep-01	0.59		0.36	0.11	e
21-Sep-01					
22-Sep-01					
23-Sep-01					
24-Sep-01					
25-Sep-01					
26-Sep-01	0.17	0.6	0.45	0.25	
27-Sep-01	0.08	DNA	0.09	0.12	
28-Sep-01	0.08	DNA	0.1	0.15	
29-Sep-01	0.11	DNA	0.19	0.19	f
30-Sep-01	0.15	DNA	0.07	0.06	
1-Oct-01					
2-Oct-01					
3-Oct-01					
4-Oct-01					
5-Oct-01					
6-Oct-01					
7-Oct-01	0.06	0.07	0.1	0.04	
8-Oct-01	0.05	0.05	0.05		g
9-Oct-01	0.09	0.07	0.07	0.1	
10-Oct-01	0.1	0.07	0.11	0.11	h

Units: ppbv

DNA: Do not analyze—nearby fumigation.

NS: No Sample—site not ready due to lack of permission.

Changes (highlighted in yellow in table):

a. Correctly reported in Table 14 of 2001 report. Valid samples (primary and duplicate).
b. Starting and ending pressures acceptable. Sample deemed valid based on above discussion.
c. Flow deviation acceptable (5.4%). Sample incorrectly invalidated.
d. Duplicate sample due to acceptable starting and ending pressures, based on above discussion.
e. Incorrectly validated. Flow and pressure both out of acceptable limits.

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f. Duplicate sample valid due to acceptable starting and ending pressures. Average of primary and replicate analysis yields identical value, so even duplicate sample is invalidated, the net result is the same.
g. Incorrectly validated. Flow and pressure out of acceptable limits.
h. Starting and ending pressures within acceptable limits. Sample deemed valid.

Data from Santa Maria are continued below.

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Final Data Table for Santa Barbara (Santa Maria) County 2001 AMBI Study

Revised	BLO	AGC	EDW	PNT	Notes
15-Aug-01					
16-Aug-01					
17-Aug-01					
18-Aug-01					
19-Aug-01					
20-Aug-01					
21-Aug-01					
22-Aug-01					
23-Aug-01	0.04	0.03	0.02		
24-Aug-01	0.03	0.13	1.02		
25-Aug-01	0.68	0.11	0.69		
26-Aug-01	3.46	0.13	1.33	0.34	
27-Aug-01	2.09	0.14	0.98	0.68	
28-Aug-01	0.19	0.06	0.44	0.1	
29-Aug-01	0.34	0.02	0.32	1.29	
30-Aug-01	0.3	0.06	0.58	1.68	
31-Aug-01					
1-Sep-01					
2-Sep-01					
3-Sep-01					
4-Sep-01	0.07	0.05	0.3	0.22	
5-Sep-01	0.17	0.05	0.09	0.43	
6-Sep-01	0.21	0.13	0.59	0.51	
7-Sep-01	0.11		0.2		
8-Sep-01					
9-Sep-01					
10-Sep-01					
11-Sep-01	1.47	0.15	1.3	1.81	
12-Sep-01		0.21	0.68	0.78	
13-Sep-01	0.4	0.21	0.64	0.59	
14-Sep-01	0.51	0.2	1.01	1.07	
15-Sep-01					

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16-Sep-01	0.78	0.03			i
17-Sep-01	0.31	0.14	0.54	0.57	
18-Sep-01	0.33	0.37	0.83		
19-Sep-01	0.42	0.3	0.49		
20-Sep-01					
21-Sep-01					
22-Sep-01					
23-Sep-01					
24-Sep-01	2.22	0.2	4.09	1.24	
25-Sep-01	1.12		7.08		
26-Sep-01	0.34		11.15	0.55	j
27-Sep-01	1.2	0.72	4.05	0.83	
28-Sep-01					
29-Sep-01					
30-Sep-01	4.55		6.08	2.69	
1-Oct-01	0.24	0.9	0.38		k
2-Oct-01	0.52	1.16	0.68	1.85	
3-Oct-01	0.24	0.48	0.22	1.43	
4-Oct-01					
5-Oct-01					
6-Oct-01	0.58	0.08	0.36	0.82	
7-Oct-01	0.52	0.21		0.93	
8-Oct-01	0.21	0.17	0.26	0.21	
9-Oct-01	1.04	0.39	0.82	2.26	

i. Sample incorrectly invalidated.
j. Sample incorrectly validated. Flow deviation outside of acceptable limits.
k. Sample incorrectly validated. Flow deviation outside of acceptable limits.

Other data tables such as the tables from pages 74-92 will be corrected in the final report revision.

2. Data Completeness

DPR Comments

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Data Completeness

- AMBI used a less stringent standard for acceptable air flow than Air Resources Board. AMBI's study director agreed that they would use ARB's standard.
- AMBI excluded some periods from sampling due to fumigations in close proximity to the samplers. One of the fumigations was apparently not methyl bromide, and samples should have been collected.
- The percentage of valid samples is likely less than 75%, the standard AMBI uses for completeness.

Response

The data completeness is represented in the following tables, based on the revised data tables included above.

Data completeness for Ventura County:

Totals	Field Samples				Comments
96	30	18	28	20	Samples collected
128	32	32	32	32	Sample basis
18	0	8	0	10	Samples not included due to fumigations, not sampled, etc.
110					Theoretical samples
Completeness	87.3%				Completeness excluding samples not collected due to fumigations and site readiness.
Completeness	75.0%				Completeness including all theoretical samples.

Data Completeness for Santa Maria

Totals	Field Samples				Comments
112	31	28	30	23	Samples collected
128	32	32	32	32	Sample basis
0	0	0	0	0	Samples not included due to fumigations, not sampled, etc.
128					Theoretical samples
Completeness	87.5%				Completeness excluding samples not

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					collected due to fumigations and site readiness.
Completeness	87.5%				Completeness including all theoretical samples.

These completeness values are based on the flow rate deviation standard that was in effect at the time, that is, a ±50% possible deviation in flow rate. After considerable debate, it was agreed to use the tighter ±25% criterion for the next study.

Regarding the exclusions in the above tables, there were two major categories: site readiness, and nearby fumigations. The site readiness pertains to the ABD site which was daily checked to determine if permission would be granted. Multiple times, it was expressed that permission would be forthcoming, but did not arrive. After one week of this cycle, another site was sought nearby but multiple attempts were rebuffed. The effort was complicated by the fact that nearby fumigations were occurring that limited the potential areas of establishing a site. Finally, permission came and samples commenced to be collected. Therefore, the expected samples were not collected due to events outside of the study control.

The second set of events that excluded samples was the two fumigations that occurred nearby site UWC. The field technician was sensitive to the issue of source-impacted samples, and observed the fumigations occurring, which matched the expected description of a methyl bromide fumigation. Therefore, these samples were excluded with the approval of the AMBI study management. When records were made available after the study regarding the fumigations, it appears that one was not methyl bromide and should have not been excluded. This was a mistake made in good faith, with no attempt to influence the data set in any way other than to obtain correct and valid field samples.

It is believed that the data set represented in these tables are adequately complete to produce some data interpretation.

3. Quality Control

Trip Blanks

While there was indeed a contamination issue in the field blanks, it does not appear to substantially effect the field data. Indeed, as a previous DPR comment noted, the net effect would be to increase the detected concentrations, for which no corrective action would be required. It was determined after the program that the likely cause for the problem was the site

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for sample media receipt, which was near a high methyl bromide use area. Small vacuum leaks could have contributed to the inadvertent collection of a small amount of contaminated ambient air.

Method Detection Limit Study

While AMBI believes that the original MDL study is valid and based on a reasonable read of the guidance provided in 40 CFR Part 136, Appendix B, however, to eliminate any concern, a repeat of that study was conducted in May, 2002. The following table includes the results of that second study:

MB Std	0.0082
Run	Result
1	0.0082
2	0.0076
3	0.0067
4	0.0063
5	0.0076
6	0.0058
7	0.0072
Ave.	0.0071
Std. Dev.	0.00084
MDL	0.0026

The standard used was 0.0082 ppbv, which yielded a detection limit of 0.003 ppbv. The standard was a factor of 3.15 times the final MDL, which is within the cited range of the guidance. These results suggest that the original study approach was indeed adequate.

2002 AMBI Study

DPR Comments

Possible Data Errors

- Coordinates for sites WAT and FRM in Table 3 are incorrect. The coordinates place them in Salinas rather than Watsonville.

- Duplicate sample results on 7/27/02 in Table 10 do not match the 7/27/02 results in Table 14.
- Flow for the following samples was outside the 25% acceptable range, but were designated as valid:
  - site PVW on 7/11/02 flow -28%
  - site PVW on 7/17/02 flow -30%
  - site PVW on 7/27/02 flow -39%
  - site WAT on 10/5/02 flow +28%
  - site CPW on 10/12/02 flow -33%
  - site FRM on 10/25/02 flow -31%
  - site FRM on 10/26/02 final flow noted as void
- Some results in Table 15 do not match the data in the Excel spreadsheet.

Date	Site	Table 15	Excel spreadsheet
9/2/02	CPW	0.003	1.34
10/9/02	MAQ	0.77	0.76

Response

1. Coordinates for Sites WAT and FRM.

The correct coordinates are listed below:

WAT: 36.906400, -121.751017

FRM: 36.923900, -121.757683

2. Two of the entries noted in Table 10 as for 7/27/02 were actually for 7/26/02. The corrected entries for those two days are as follows:

7/26/2002	0.702	0.296	**81.4%**
7/26/2002	1.07	0.746	**35.7%**
7/26/2002	0.731	0.35	**70.5%**
7/27/2002	0.173	0.178	**2.8%**
7/27/2002	0.712	0.561	**23.7%**

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Note that this error did not affect the data in Table 14, which correctly reflect the actual dates.

3. Incorrect Flows and Data Validation

Site and Comment	Response
PVW on 7/11/02 flow -28%	Valid sample. Secondary flow used, deviation=25%.
PVW on 7/17/02 flow -30%	Valid sample. Secondary flow used=25%.
PVW on 7/27/02 flow -39%	Valid sample. Replicate samples collected and only valid sample submitted. Can#649, flow deviation=1%.
WAT on 10/5/02 flow +28%	Invalid sample. Flow deviation.
CPW on 10/12/02 flow -33%	Invalid sample. Flow deviation.
FRM on 10/25/02 flow -31%	Invalid sample. Flow deviation.
FRM on 10/26/02 final flow noted as void	Valid primary sample—flow deviation = 15.2%. Duplicate was invalid (noted as void) and not reported.

Explanation for the PVW samples noted above as using the secondary flow: The field protocol was to do a first flow measurement immediately after opening the canister valve, and then to wait for 10 minutes and do another check. If the secondary flow measurement was relatively constant—e.g., not more than a few tenths of a mL/minute difference, the sample was allowed to continue.

For sample validation, if the flow deviation was close to the criterion, the secondary flow measurement was examined and was used to calculate the flow deviation. The reasoning is that the secondary flow measurement is closer to what was actually experienced throughout the sampling period since the flow controller had been allowed to equilibrate and settle into its final flow after the first measurement. Therefore, the secondary measurement was deemed to be more representative of the continuous flow the controller would exert. This occurred for just two samples—PVW on 7/11/02 and PVW on 7/17/02. The notation on 7/17/02 of "leaking gauge" was based on a quick field review and was not supported by final validation.

The other entries in the table are self-explanatory.

Final Data Tables for Ventura–2002

Ventura-02						Notes
Date	Day	ABD	SHA	PVW	UWC	
7/7/2002	Sun					
7/8/2002	Mon					
7/9/2002	Tue					
7/10/2002	Wed	0.042	0.028	0.21	--	a
7/11/2002	Thu	0.092	0.031	0.56	--	
7/12/2002	Fri	0.25	0.013	0.49	0.17	
7/13/2002	Sat	0.18	0.087	0.35	0.36	
7/14/2002	Sun					
7/15/2002	Mon					
7/16/2002	Tue					
7/17/2002	Wed	--	0.11	0.10	0.41	b
7/18/2002	Thu	0.39	0.15	0.63	1.0	
7/19/2002	Fri	0.14	0.028	0.30	0.42	
7/20/2002	Sat	0.16	--	0.15	--	
7/21/2002	Sun					
7/22/2002	Mon					
7/23/2002	Tue					
7/24/2002	Wed	0.88	0.37	0.86	2.1	
7/25/2002	Thu	1.9	0.45	0.23	3.2	
7/26/2002	Fri	0.50	0.63	0.91	0.54	
7/27/2002	Sat	0.18	0.08	0.38	0.64	c
7/28/2002	Sun					
7/29/2002	Mon					
7/30/2002	Tue					
7/31/2002	Wed	--	0.041	0.73	--	
8/1/2002	Thu	0.41	0.060	0.62	0.77	
8/2/2002	Fri	1.0	0.059	0.85	1.5	
8/3/2002	Sat	0.99	0.43	1.6	7.5	
8/4/2002	Sun					
8/5/2002	Mon					
8/6/2002	Tue					
8/7/2002	Wed	2.0	5.8	5.2	5.2	
8/8/2002	Thu	3.4	1.9	6.0	13	

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Ventura-02						Notes
8/9/2002	Fri	3.4	1.3	9.5	8.8	
8/10/2002	Sat	2.0	0.11	3.6	4.7	
8/11/2002	Sun					
8/12/2002	Mon					
8/13/2002	Tue					
8/14/2002	Wed	0.67	0.18	1.3	2.4	
8/15/2002	Thu	0.36	0.12	1.2	1.5	
8/16/2002	Fri	0.16	0.089	1.0	1.2	
8/17/2002	Sat	0.57	0.64	1.2	1.4	
8/18/2002	Sun					
8/19/2002	Mon					
8/20/2002	Tue					
8/21/2002	Wed	0.59	1.4	3.2	1.9	
8/22/2002	Thu	0.62	2.2	3.1	1.7	
8/23/2002	Fri	0.65	0.86	2.4	DNA	
8/24/2002	Sat	0.34	1.2	1.8	DNA	
8/25/2002	Sun					
8/26/2002	Mon					
8/27/2002	Tue					
8/28/2002	Wed	0.19	0.04	0.28	0.37	
8/29/2002	Thu	0.072	0.004	0.36	0.34	
8/30/2002	Fri	0.22	0.14	1.2	0.44	
8/31/2002	Sat	0.98	0.024	1.5	1.2	

Notes:

a. Valid sample. Secondary flow at 10 minutes used for flow deviation assessment. See above discussion.

b. Valid sample. Secondary flow at 10 minutes used for flow deviation assessment. See above discussion.

c. Valid sample. Replicate samples collected on that day, and only the one valid sample was analyzed and reported. Sample in can #756 was reported and had a flow deviation of 1%.

Final Data Table for Monterey-Santa Cruz—2002

M-SC								Notes
Date	Day	MAQ	BBC	WAT	FRM	CPW	SCF	
4-Sep	Wed	0.36	4.1	9.9	2.8	--		
5-Sep	Thu	0.86	2.9	7.5	4.2	1.34		
6-Sep	Fri	1.1	2.0	4.0	5.7	3.5		
7-Sep	Sat	1.2	1.0	--	14.0	2.8		
8-Sep	Sun							
9-Sep	Mon							
10-Sep	Tue							
11-Sep	Wed	0.092	0.37	1.2	0.72	2.3	0.12	
12-Sep	Thu	0.21	0.80	0.65	0.47	0.90	0.24	
13-Sep	Fri	0.64	0.85	2.2	1.9	1.2	--	
14-Sep	Sat	0.83	1.6	2.1	2.1	1.5	0.69	
15-Sep	Sun							
16-Sep	Mon							
17-Sep	Tue							
18-Sep	Wed	2.5	6.3	16.4	6.8	3.0		
19-Sep	Thu	4.5	5.5	12	9.8	11		
20-Sep	Fri	2.7	3.4	4.1	2.6	2.2		
21-Sep	Sat	0.80	6.3	0.94	2.0	2.8		
22-Sep	Sun							
23-Sep	Mon							
24-Sep	Tue							
25-Sep	Wed	0.18	0.81	0.83	0.83	1.3		
26-Sep	Thu	0.077	0.50	0.95	0.60	1.0		
27-Sep	Fri	0.43	1.2	3.1	0.45	1.5		
28-Sep	Sat	0.48	0.004	5.7	4.1	4.1		
29-Sep	Sun							
30-Sep	Mon							
1-Oct	Tue							
2-Oct	Wed	1.2	0.54	4.0	1.5	3.2		
3-Oct	Thu	1.3	1.8	3.4	3.6	3.5		
4-Oct	Fri	2.1	2.5	3.9	0.79	2.7		
5-Oct	Sat	2.5	2.2		5.3	4.6		d
6-Oct	Sun							

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M-SC								Notes
7-Oct	Mon							
8-Oct	Tue							
9-Oct	Wed	0.76	2.0	0.89	0.25	0.38		
10-Oct	Thu	0.25	4.6	3.0	0.51	0.82		
11-Oct	Fri	1.8	3.2	6.5	1.8	1.4		
12-Oct	Sat	1.5	3.1	0.24	1.5			e
13-Oct	Sun							
14-Oct	Mon							
15-Oct	Tue							
16-Oct	Wed	0.63	2.2	3.5	1.9	0.28	0.018	
17-Oct	Thu	0.22	0.24	1.7	1.3	0.53	0.14	
18-Oct	Fri	0.32	0.25	1.0	1.0	0.64	0.094	
19-Oct	Sat	0.51	0.93	1.3	1.0	0.64	0.43	
20-Oct	Sun							
21-Oct	Mon							
22-Oct	Tue							
23-Oct	Wed	0.11	0.30	0.85	0.50	0.49		
24-Oct	Thu	2.4	1.7	3.0	2.0	2.2		
25-Oct	Fri	3.1	3.3	4.4		0.41		f
26-Oct	Sat	0.39	0.32	0.75	0.60	0.35		g

Notes:

d. Invalid sample.

e. Invalid sample.

f. Invalid sample.

g. Valid sample. Duplicate sample was invalid and not reported. Flow deviation for primary sample was 15.2%

4. Results from Table 15 do not match Excel spreadsheet.

Response

The above tables are believed to be correct and are reflected in the Excel spreadsheet included in this deliverable.

5. Issues Requiring Further DPR Review
   - Site WAT does not meet U.S. EPA siting criteria.
   - Fumigation excluded from monitoring on 8/23-24/02.
   - Some quality control data appeared to be unusual.

Response

Site WAT: It is believed that site WAT generally meets EPA siting criteria as applied in the this study. It appears to conform at least as much as site MAQ, which is used as a Monterey APCD monitoring site and was used in the previous CARB/DPR study.

Excluded Periods: Photos were included of the noted fumigation, and it is evident that the proximity could cause the samples to be source impacted.

QC data: The report cited justification for the unusual QC data and the reasons why it did not affect the overall data quality of the program.

II. Comments from May 27, 2003 email from Randy Segawa.

1. Comment 3 - Provide additional data regarding the method detection limit determination. At the May 22, 2003 meeting, you indicated that a MDL determination was conducted a couple of weeks after our June 2002 meeting. Please provide this data.

Response

A response to this comment is included in the above discussions.

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2. Comment 22 - DPR noted discrepancies in the tables that we checked, but not all tables were checked. Please check for discrepancies in all tables, and provide corrections where appropriate.

Response

As noted above, secondary tables in the report will include the noted changes from the primary data tables in the full report revision. It has been understood that the main use at this point for the primary data tables is to conduct regression modeling exercises on the data set. Many of the other data tables are supporting the primary data set or are interpretations of the data that DPR had indicated were superfluous to their needs. Therefore, it was concluded these other tables used for other analysis were not as important as the main data tables.

3. Comment 27 - Several samples are apparently misidentified as valid when they are invalid, and invalid when they are valid, due to flow deviation. Please check the flow data for all samples and indicate which samples are invalid based on the +/-25% flow deviation standard.

Response

The 2001 data tables included in this memo were validated based on the flow standard in force at the time of the study of ±50%. The corrected data tables included in this memo addresses the questionable deviations noted in the May 29, 2002 memo. The remainder of comment 27 from May 29, 2002 does not include any mention of the ±25% criterion, and therefore the request for any other evaluation as noted above is unclear. Furthermore, the use of a different flow criterion after the fact to validate the data puts an unreasonable constraint on the data since there is no opportunity to apply corrective actions to any field effort. If tighter constraints were in place at the time, other efforts would have possibly been considered to meet them, so to invalidate more data at this time unduly puts the data set at risk and is unfair to the effort expended.

4. For both years, please provide a description of the items you checked, the changes made, and why they were made. For samples which DPR indicated a possible error, but no change was made, indicate why no change was made. For both years, please provide Excel files with the revised data. The samples with changed values should be indicated (e.g. bold or different color).

Response

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Any changes noted have been highlighted and explained.

Please feel free to contact me if you have any questions.

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Revised	PVW	UWC	SHA	ABD		
15-Aug-01	1.82	2.58	0.69	NS		
16-Aug-01	1.05	1.85	0.17	NS		
17-Aug-01	3.17	1.8	0.18	NS		
18-Aug-01						
19-Aug-01						
20-Aug-01						
21-Aug-01	0.5	1.53		NS		
22-Aug-01	1.91	0.45		NS		
23-Aug-01	2.49	4.35	2.94	NS		
24-Aug-01		2.01	3.38	NS	a	Correctly reported in Table 14 of 2001 report. Valid samples (primary and duplicate).
25-Aug-01	0.81	0.25	1.09	NS		
26-Aug-01						
27-Aug-01						
28-Aug-01	0.12	0.21	1.09	NS		
29-Aug-01	0.15	0.1	0.07	NS		
30-Aug-01	0.28	0.35	0.56	0.44		
31-Aug-01	0.15	0.18				
1-Sep-01						
2-Sep-01						
3-Sep-01						
4-Sep-01						
5-Sep-01						
6-Sep-01	0.2	DNA	0.04	0.05		
7-Sep-01	0.1	DNA	0.03	0.13		
8-Sep-01	0.07	DNA	0.05	0.13	b	Starting and final pressures OK, sample deemed valid.
9-Sep-01	0.16	DNA	0.23	0.39		
10-Sep-01						
11-Sep-01						
12-Sep-01						
13-Sep-01	0.17	0.07	0.38	0.07	c	Flow deviation OK (5.4%). Incorrectly invalidated.
14-Sep-01	0.15		0.07	0.1		
15-Sep-01	0.2		0.13	0.15		
16-Sep-01	0.29		0.11	0.11		
17-Sep-01	0.35		0.13	0.14		
18-Sep-01						
19-Sep-01	0.18	0.18	0.1	0.1	d	Duplicate sample valid due to acceptable starting and ending pressures.
20-Sep-01	0.59		0.36	0.11	e	Incorrectly validated. Flow and pressure both out of acceptable limits.
21-Sep-01						
22-Sep-01						
23-Sep-01						
24-Sep-01						
25-Sep-01						
26-Sep-01	0.17	0.6	0.45	0.25		
27-Sep-01	0.08	DNA	0.09	0.12		
28-Sep-01	0.08	DNA	0.1	0.15		
29-Sep-01	0.11	DNA	0.19	0.19	f	Duplicate sample valid due to acceptable starting and ending pressures. Avg of primary and replicate analysis yields identical value.
30-Sep-01	0.15	DNA	0.07	0.06		
1-Oct-01						
2-Oct-01						
3-Oct-01						
4-Oct-01						
5-Oct-01						
6-Oct-01						
7-Oct-01	0.06	0.07	0.1	0.04		
8-Oct-01	0.05	0.05	0.05		g	Incorrectly validated. Flow and pressure both out of acceptable limits.
9-Oct-01	0.09	0.07	0.07	0.1		
10-Oct-01	0.1	0.07	0.11	0.11	h	Starting and final pressures OK, sample deemed valid.
Totals		Field Samples				
96	30	18	28	20		Samples collected
128	32	32	32	32		Sample basis
18	0	8	0	10		Samples not included due to fumigations, not sampled, etc.
110						Theoretical samples
Completeness	87.3%					Completeness excluding samples not collected due to fumigations and site readiness.
Completeness	75.0%					Completeness including all theoretical samples.

DATE	BLO	AGC	EDW	PNT		
15-Aug-01						
16-Aug-01						
17-Aug-01						
18-Aug-01						
19-Aug-01						
20-Aug-01						
21-Aug-01						
22-Aug-01						
23-Aug-01	0.04	0.03	0.02			
24-Aug-01	0.03	0.13	1.02			
25-Aug-01	0.68	0.11	0.69			
26-Aug-01	3.46	0.13	1.33	0.34		
27-Aug-01	2.09	0.14	0.98	0.68		
28-Aug-01	0.19	0.06	0.44	0.1		
29-Aug-01	0.34	0.02	0.32	1.29		
30-Aug-01	0.3	0.06	0.58	1.68		
31-Aug-01						
1-Sep-01						
2-Sep-01						
3-Sep-01						
4-Sep-01	0.07	0.05	0.3	0.22		
5-Sep-01	0.17	0.05	0.09	0.43		
6-Sep-01	0.21	0.13	0.59	0.51		
7-Sep-01	0.11		0.2			
8-Sep-01						
9-Sep-01						
10-Sep-01						
11-Sep-01	1.47	0.15	1.3	1.81		
12-Sep-01		0.21	0.68	0.78		
13-Sep-01	0.4	0.21	0.64	0.59		
14-Sep-01	0.51	0.2	1.01	1.07		
15-Sep-01						
16-Sep-01	0.78	0.03			I	Sample incorrectly invalidated.
17-Sep-01	0.31	0.14	0.54	0.57		
18-Sep-01	0.33	0.37	0.83			
19-Sep-01	0.42	0.3	0.49			
20-Sep-01						
21-Sep-01						
22-Sep-01						
23-Sep-01						

DATE	BLO	AGC	EDW	PNT		
24-Sep-01	2.22	0.2	4.09	1.24		
25-Sep-01	1.12		7.08			
26-Sep-01	0.34		11.15	0.55	j	Sample incorrectly validated.
27-Sep-01	1.2	0.72	4.05	0.83		
28-Sep-01						
29-Sep-01						
30-Sep-01	4.55		6.08	2.69		
1-Oct-01	0.24	0.9	0.38		k	Sample incorrectly validated.
2-Oct-01	0.52	1.16	0.68	1.85		
3-Oct-01	0.24	0.48	0.22	1.43		
4-Oct-01						
5-Oct-01						
6-Oct-01	0.58	0.08	0.36	0.82		
7-Oct-01	0.52	0.21		0.93		
8-Oct-01	0.21	0.17	0.26	0.21		
9-Oct-01	1.04	0.39	0.82	2.26		
Totals		Field Samples				
112	31	28	30	23		Samples collected
128	32	32	32	32		Sample basis
0	0	0	0	0		Samples not included due to fumigations, not sampled, etc.
128						Theoretical samples
Completeness	87.5%					Completeness excluding samples not colllected due to fumigations and site readiness.
Completeness	87.5%					Completeness including all theoretical samples.